(No Model.) 2 Sheets—Sheet 1.

C. E. KREIDER.

ELEVATOR ATTACHMENT FOR LAWN MOWERS.

No. 600,005. Patented Mar. 1, 1898.

Fig. 1.

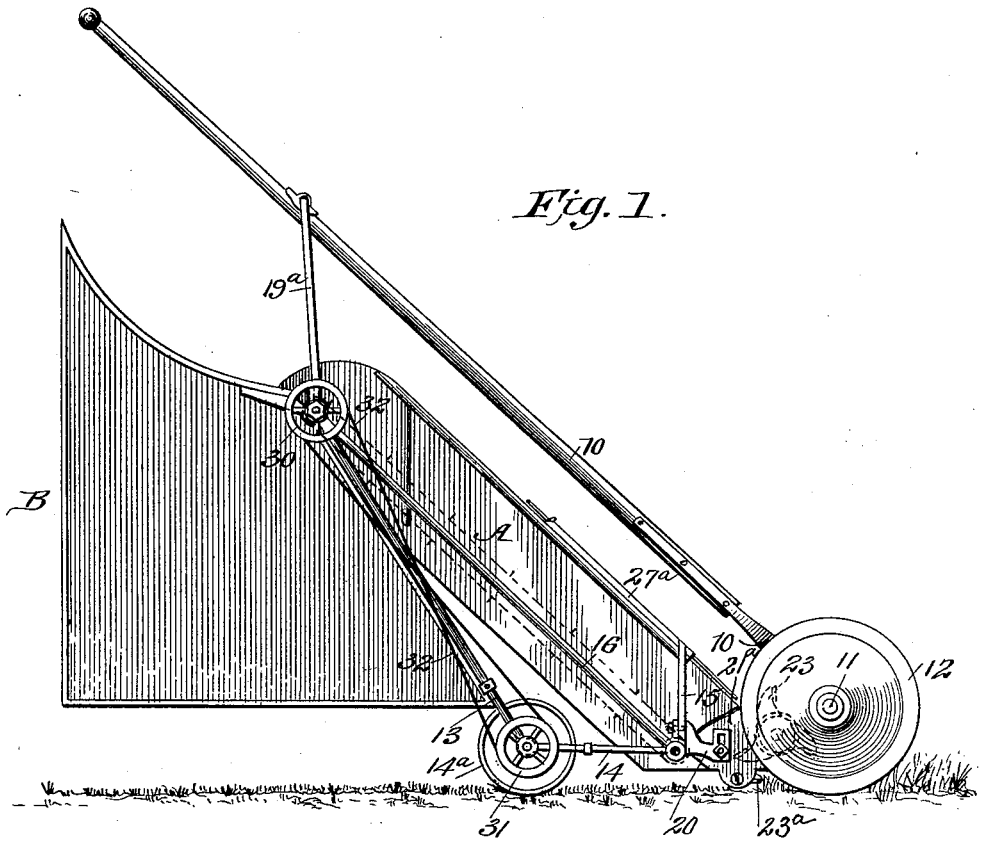
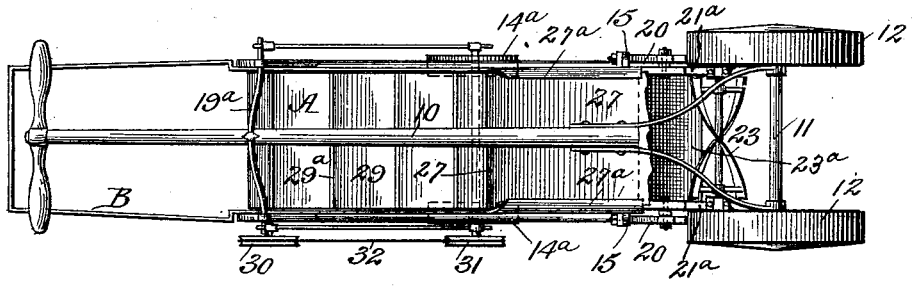


Fig. 2.



WITNESSES:

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(No Model.) 2 Sheets—Sheet 2.

C. E. KREIDER.

ELEVATOR ATTACHMENT FOR LAWN MOWERS.

No. 600,005. Patented Mar. 1, 1898.

Fig. 3.

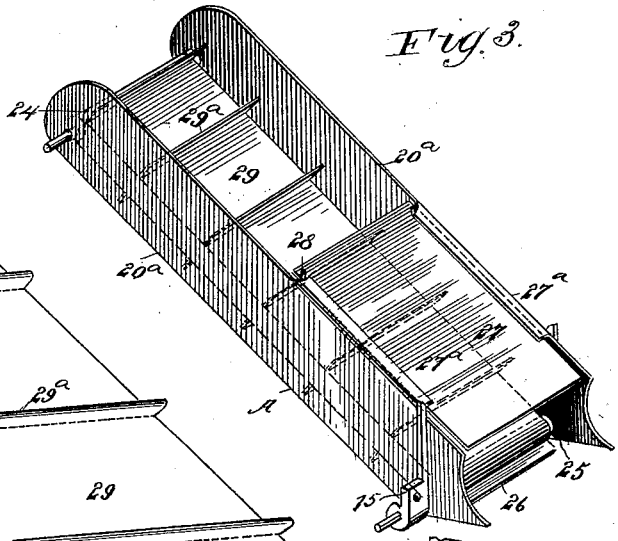


Fig. 4.

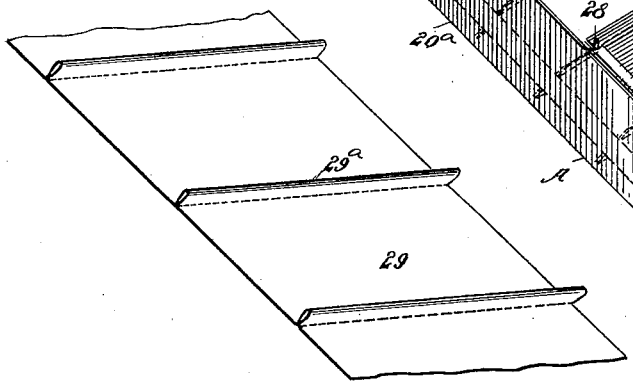


Fig. 6.

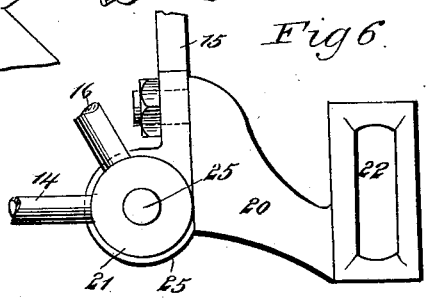


Fig. 5.

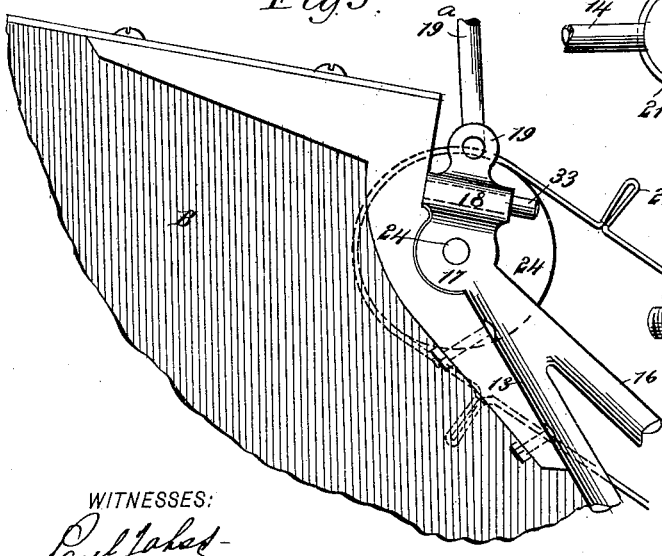
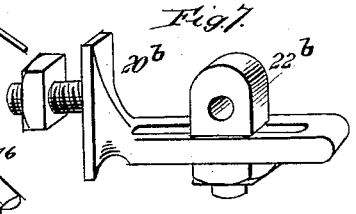


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHARLES EDWARD KREIDER, OF LOGANSPORT, INDIANA.

ELEVATOR ATTACHMENT FOR LAWN-MOWERS.

SPECIFICATION forming part of Letters Patent No. 600,005, dated March 1, 1898.

Application filed April 6, 1895. Serial No. 544,741. (No model.)

To all whom it may concern:

Be it known that I, CHARLES EDWARD KREIDER, of Logansport, in the county of Cass and State of Indiana, have invented a new and Improved Elevator Attachment for Lawn-Mowers, of which the following is a full, clear, and exact description.

My invention relates to an elevator attachment for lawn-mowers; and it has for its object to provide an attachment whereby the cut grass will be taken up from the knives and delivered to a receiving-receptacle at the back of the machine, provision being made to prevent the possibility of the wind scattering the grass as it is delivered to the elevator and while contained thereon.

Another object of this invention is to so construct the elevator that it will be exceedingly light, and, in fact, to construct the entire attachment so that it will not cause any unnecessary draft on the cutters or unnecessary weight on the handle by means of which the machine is propelled.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a lawn-mower having the improvement applied. Fig. 2 is a plan view. Fig. 3 is a perspective view of the elevator-section of the device. Fig. 4 is a detail view of a portion of the elevator-belt. Fig. 5 is an enlarged view of the upper outer side portion of the elevator and the grass-receiving receptacle, the side board of the elevator being omitted. Fig. 6 is an enlarged detail view of the bracket for attaching the side frame to the mower and also that portion of the side frame to which the said bracket is secured. Fig. 7 is a modified form of the bracket for securing the attachment to a mower.

In carrying out the invention the lawn-mower consists of the usual handle 10, the axle 11, upon which ground-wheels 12 are mounted, the axle or shaft of the cutters 23 being driven from the ground-wheels in any suitable or preferred manner, and in connection with the axle, its wheels, and the tongue or pole 10 a frame is employed, which frame is duplicated at each side of the machine, consisting of an upwardly and rearwardly extending standard 13, a horizontal bar connected therewith, designated as 14, and a vertical bar 15, projected upward from the forward end of the horizontal bar, together with an intermediate diagonal bar or standard 16, which extends from the junction of the horizontal and vertical bars to a connection with the upper end of the rear diagonal bar or standard 13, the junction of these two standards being best shown in Fig. 5.

At the junction of the standards or bars 13 and 16 of each frame-section a journal-box 17 is formed, and above it a socket 18, while above the socket an eye 19 is produced, and the two arms are supported from the pole, tongue, or handle 10 by means of a yoke 19^a, pivoted to the said pole or handle, and the extremities of the yoke are secured in the eyes 19 of the frame-sections. Each frame-section is supported at its lower end by a ground-wheel 14^a, journaled in a suitable bearing produced at the junction of the rear diagonal bar or standard 13 and the horizontal bar 14 of a section.

A bracket 20 is secured to the lower portion of each vertical bar 15 of a frame-section, and each frame-section adjacent to this bracket is fitted with a bearing 21, while the brackets 20 are provided with elongated slots 22 to receive a bolt by which the frame-section is secured to the lawn-mower.

The lawn-mower illustrated in the drawings has the usual rearwardly-extending side plates 21^a, between which the stationary knife 23^a is supported, and the frame-sections are shown secured in position on the mower by bolts which extend through the slots in the brackets 20 and through bolt-holes or openings formed in the side plates 21^a of the mower.

An elevator A is located back of the ground-wheels, being supported in any approved manner by the sections of the frame, heretofore described, and the said elevator comprises two side pieces 20^a, which extend downward, running quite close to the ground-wheels, as shown in Figs. 1 and 2, and in the upper end of these side boards or pieces a

roller 24 is mounted to revolve, the trunnions of which are carried through the bearings 17 in the upper portions of the frame-sections, and at the lower end of the side boards of the elevator a second roller 25 is mounted to revolve, the trunnions of this roller being journaled in the bearings 21 at the lower forward portions of the frame-sections, and a board 26, projected from beneath the lower roller 25 of the elevator, is carried quite close to the knives in order that the grass cut may not drop to the ground, but will be received by the said board. A top 27 is placed particularly upon the lower portion of the elevator-box, being held to slide in ways 27^a, formed upon the said side pieces of the box, and it is limited in its downward movement by stop-pins 28.

An elevator-belt 29 is provided, being an endless one, and it is passed around the rollers 24 and 25, and instead of being provided with attached cross-bars the material of the belt is gathered up transversely to form series of ribs 29^a and is stitched or otherwise secured in its ribbed position. In this manner the elevator-belt and the entire elevator the rendered exceedingly light.

The elevator is driven by passing a belt 32 over a pulley 31, located on the same shaft as the rear ground-wheel 14^a, the belt being likewise passed over a pulley 30, secured to a trunnion of the roller 24.

The grass-receptacle B is placed at the rear of the elevator, and the latter delivers the material therein. The receptacle is made to fit close to the rear bars or standards of the frame of the attachment, as illustrated in Fig. 1, and is provided at its upper portion at each side with a pin 33, the said pins being adapted to enter the sockets 18 in the attachment-frame. Under this construction the receptacle may be expeditiously and conveniently removed and relieved of its contents whenever necessary.

It will be understood that the elevator and receptacle above described can be readily attached to any lawn-mower, and it is obvious that when a lawn-mower is fitted with the attachment all of the cut grass will be carried upward by the elevator and deposited in the said receptacle, thus obviating the necessity of raking the ground over or gathering up the grass, and the cut grass may be placed in piles much more conveniently than under the old system of cutting.

In Figs. 1 and 2 the lower ends of the side pieces 20^a of the elevator are shown as curved to correspond to the rear portion of the side plates of the mower, the curvature in these figures being a modification of that shown in Fig. 3. In the latter figure the lower ends of the side pieces 20^a of the elevator are shown as curved to correspond to the curvature of the ground-wheels of the mower, the side pieces when constructed as shown in this figure extending in close proximity to the said wheels.

In Fig. 7 I have shown a modified form of the bracket, in which the bracket 20^b has an adjustable portion 22^b, by which the bracket is attached to the lawn-mower. With this construction the distance between the elevator and the lawn-mower can be regulated.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with a lawn-mower, of a frame supported from the handle or pole thereof at its upper end and having a wheel-support at its lower end, an elevator secured in said frame at the rear of the knives or cutters, a cover located at the upper forward portion of the elevator-frame above its carrying-belt, the said cover being held to slide in suitable ways, stops for limiting the downward movement of the cover, a receptacle for the cut grass located at the rear of the elevator and a driving mechanism for the elevator-belt, as and for the purpose set forth.

2. In an elevator, an elevator-belt having its material gathered up to form transverse ribs, and means, substantially as described, for securing the ribs at an angle to the body of the belt, as and for the purpose specified.

3. In an elevator, a conveying-belt having its material gathered up to form a series of transverse ribs upon one face, the ribbed material being stitched at its connection with the body of the belt, whereby retaining-surfaces are formed upon the belt without adding to its weight, substantially as described.

CHARLES EDWARD KREIDER.

Witnesses:
WM. MCDONALD,
WILLARD PLACE.